

NATURAL RESOURCES CONSERVATION SERVICE  
CONSERVATION PRACTICE STANDARD

MOLE DRAIN

(ft)  
Code 482



**DEFINITION**

An underground conduit constructed by pulling a bullet-shaped cylinder through the soil.

**PURPOSE**

This practice may be applied as part of a resource management system to establish a system of subsurface earthen channels for removal of trapped surface and subsurface water.

**CONDITIONS WHERE PRACTICE APPLIES**

Where the use of buried drains is physically or economically impractical to complete the drainage required. Mole drains may be used in fields with highly cohesive or fibrous soils that are free of stones, gravel, or sand lenses if the area served is small and if an outlet is available or can be constructed to provide continuously free outfall from the drains. They may also be used as a supplement to other drains.

**CRITERIA**

Planned work shall comply with all Federal, state, and local laws and regulations.

**Size.** The minimum diameter of a mole drain shall be 4-inches. A 6-inch mole will usually create a hole approximately 4 ½ inches in diameter.

**Location, grade, and length.** The location, grade, length of line, depth, spacing and size of drains, and the outlet protection for such drains shall meet requirements of NRCS National Engineering Handbook, Part 624, Drainage, or the Florida Drainage Guide.

**Outlet.** Outlets must have sufficient depth and capacity to provide continuous free outfall.

**CONSIDERATIONS**

Considerations shall be given to the practice effects on the following:

- runoff, infiltration, deep percolation, and potential ground water recharge
- effects on existing wetland hydrology
- effects of increased drainage waters on downstream baseflow
- effects of increase in dissolved substances that may be discharged to streams
- effects on aquifer recharge water quality
- reduction in the yields of sediment or sediment-attached substances
- and effects on downstream water quality and water use
- downstream temperature changes,
- effects on the visual quality of downstream waters

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard, contact the Natural Resources Conservation Service.

### **PLANS AND SPECIFICATIONS**

Plans and specifications for installing mole drains shall be in keeping with this standard and shall describe the requirements for proper installation of the practice to achieve its intended purpose.

Mole drains shall be installed according to an approved plan, or as modified by an authorized technician at the site.

### **OPERATION AND MAINTENANCE**

Operation and maintenance shall consist of periodic checks to determine that the outlet is open and free flowing.

### **REFERENCES**

NRCS National Engineering Handbook,  
Part 624, Drainage  
Florida Drainage Guide